

# ***Headquarters U.S. Air Force***

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## **Integrating LEED concepts and EMS into Air Force Performance Measures**



**Ms. Karen Winnie  
AFCEE**

**Ms. Christine Tipton  
Booz Allen Hamilton**

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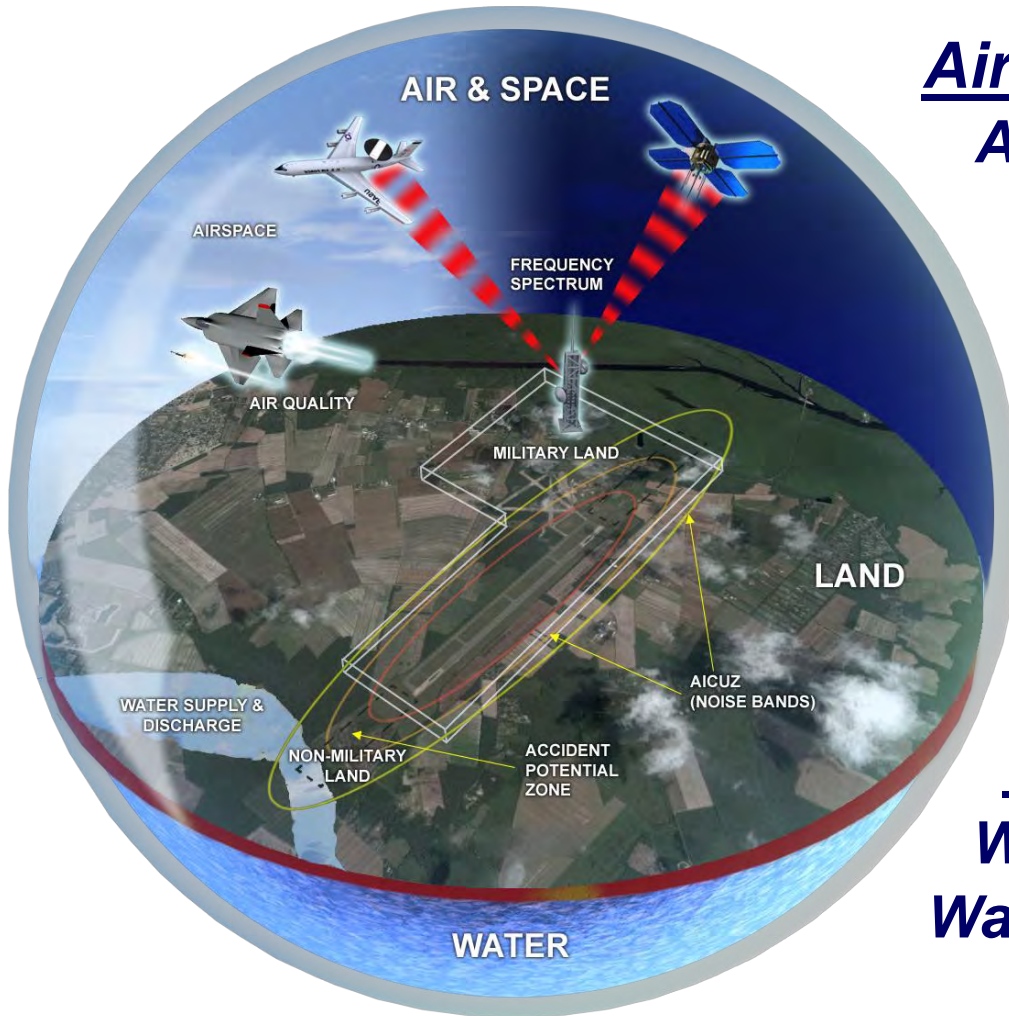
# *Overview*

- **Natural Infrastructure Management**
- **EO 13423**
- **LEED Concept**
- **Environmental Programs**
- **Environmental Management System Structure**
- **Data Output**
- **Consolidation**



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# ***Natural Infrastructure Elements***



## ***Air and Space***

***Air Quality***

***Airspace***

***Frequency Spectrum***

## ***Land***

***Military***

***Non-Military***

## ***Water***

***Water Supply***

***Water Discharge***

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# ***NIM - Objectives***

- **Support the installation mission**
  - Quantify adequacy of natural resources to support mission
  - Include resource readiness ratings in reporting systems to provide visibility to leadership
  - Mitigate resource deficiencies through programming and budgeting process – “sustain, restore and modernize” just like the built infrastructure
  - Create and manage natural assets for current or future use
- **Influence Air Force & DoD strategic planning processes**
  - Use resource readiness to support basing decisions





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# ***Executive Order 13423***

## ***Strengthening Federal Environmental, Energy, and Transportation Management***

(Signed Jan 24, 2007)

- **Replaces several executive orders**
- **Mandates Objectives & Targets (O&Ts) at the Agency level**



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# *Executive Order 13423*

## **Mandates the use of an EMS:**

*... implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure [the] use of **EMS as the primary management approach** for addressing environmental aspects of:*

- *Internal agency operations*
- *Agency activities (including energy and transportation functions)*

**EO 13423 requires the EMS to be the primary management approach for addressing environmental aspects.**



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# ***Executive Order 13423***

## **Implies Significant Environmental Aspects:**

- Procurement
- Transportation (fuel use)
- Energy Consumption
- Chemical Use
- Purchase and Use of Electronic Products
- Waste Generation
- Building Construction, Major Renovation or Improvement (incorporating sustainable development, green building and LEED principles)





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# ***LEED Program Elements***

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- **Sustainable Sites**
- **Materials and Resources**
- **Energy and Atmosphere**
- **Water Conservation and Management**
- **Indoor Air Quality**
- **Innovation and Design**



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# ***LEED Building***

## **What Is Green Building?**



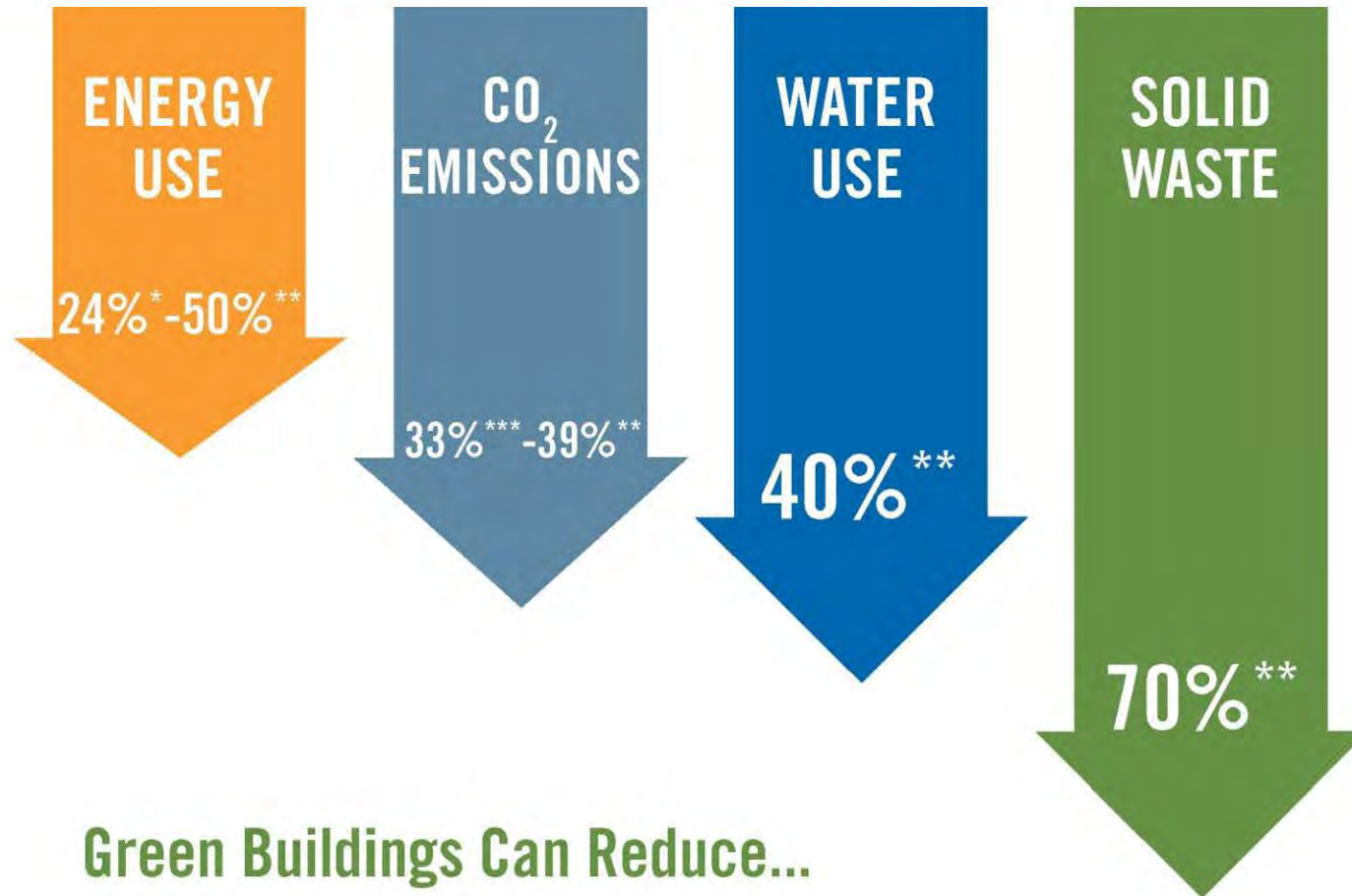
© U.S. Green Building Council, 2008

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# ***LEED BUILDINGS CONT.***

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**Green Buildings Can Reduce...**

\* Turner, C. & Frankel, M. (2008). Energy performance of LEED for New Construction buildings: Final report.

\*\* Kats, G. (2003). The Costs and Financial Benefits of Green Building: A Report to California's Sustainable Building Task Force.

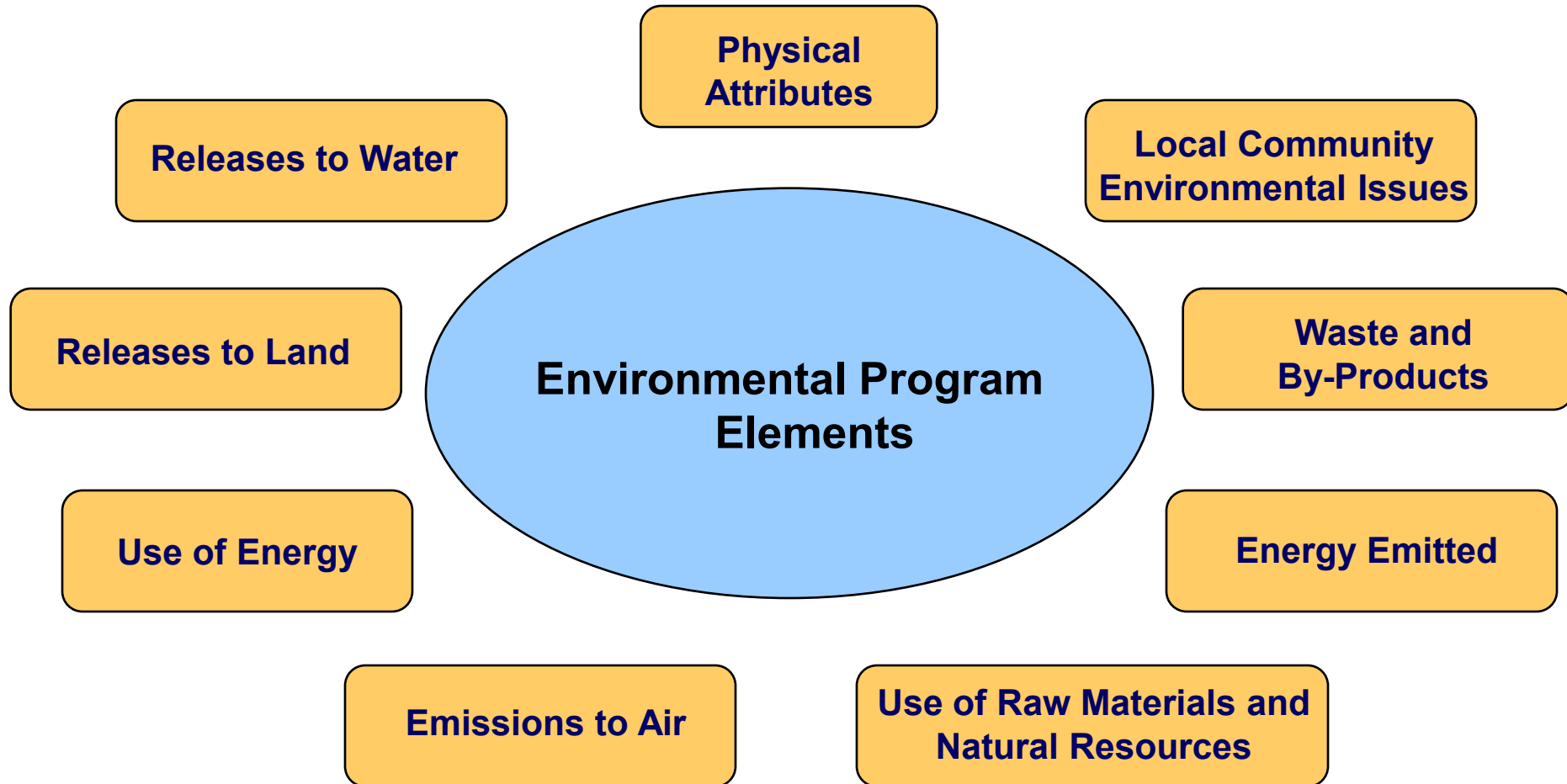
\*\*\* GSA Public Buildings Service (2008). Assessing green building performance: A post occupancy evaluation of 12 GSA buildings.

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# ***Environmental Program Elements***



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# ***CFT Members***

- **Engineers**
- **Building Occupants**
- **Operations and Maintenance Teams**
- **Environmental Team**
- **Safety Team**
- **Human Resources**
- **Purchasing Staff**
- **Faculty**
- **Interior Designers**
- **ETC...**

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# ***Air Force Data Calls***

- **Many Programs**
- **Numerous Data Calls**
- **Overlapping Objectives**
- **Need for a Management System with FLEXIBILITY**
- **EMS**



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# ***Need for a Management System***

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- **Provides the Framework to Achieve Long-term Objectives of Sustaining, Restoring and Modernizing**
- **Key Attributes Include:**
  - **Measuring Ability to Meet Operational Requirements**
  - **Developing Actions and Prioritizing Investment Decisions**
  - **Correcting Deficiencies**
  - **Identifying and Sustaining Resource Opportunities for Mission Growth Via Force Structure Moves**
  - **Teamwork Across the Organization, Inclusive of Operators And Civil Engineers**
  - **Tracking Performance Measures Over Time**



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# ***EMS Overview***



- **Identifies and Provides the Planning and Management**
- **Identifies Risks and Creates Focus to Reduce Those Risks**
- **Involves and Integrates Senior Management**
- **Protects the Resource Base for Long Term Planning**





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# *In Place EMS to Facilitate NIM*

*The Environmental Management System provides the mechanism/spring board to ensure natural infrastructure meets operational capacity*

*Leverage this proven system and transform it from an EMS to a holistic Management System*

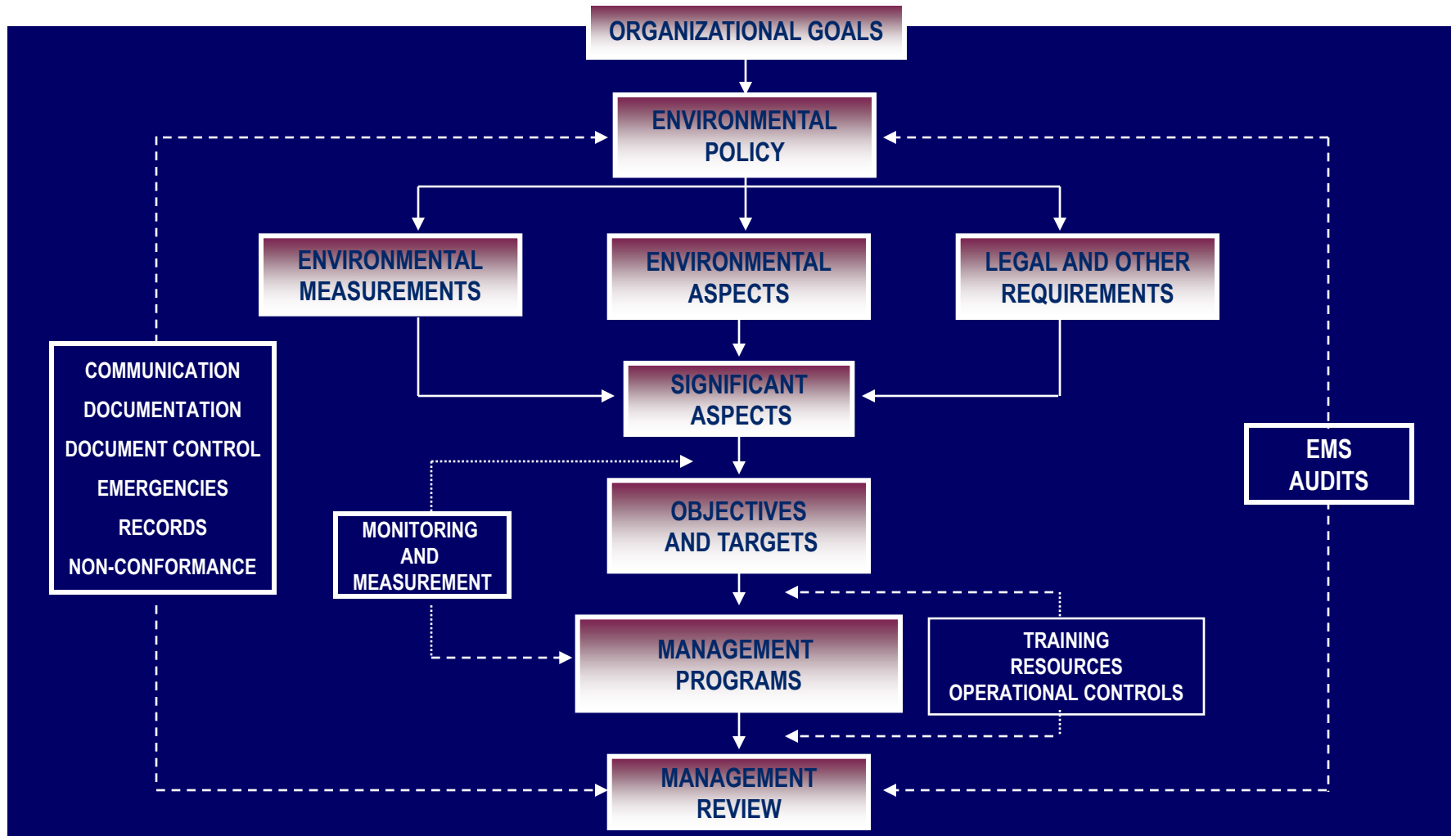


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# Elements of an EMS



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# ***Performance Roll Up***

- **Many programs**
- **Many Data Calls with Overlap**
- **Same Management System Used**
- **Air Force Measurement Tool**
- **Performance Roll-Up**
- **Lessening the Number of Data Calls**
- **Time Savings**



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# ***QUESTIONS***



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# ***Contact Information***

**Karen Winnie**

**AFCEE**

[Karen.winnie@brooks.af.mil](mailto:Karen.winnie@brooks.af.mil)

**Christine Tipton**

**Booz Allen Hamilton**

[Tipton\\_christine@bah.com](mailto:Tipton_christine@bah.com)

**785-969-7040**

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